

## REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

The claims currently pending in this application are Claims 1-7, with Claims 1 and 3 being the only dependent claims.

Independent Claim 1 recites an injection needle comprising a first ground facet formed on the distal end of a needle tube, and at least two ground facets subsequently formed to provide a needle point. The injection needle is configured such that the plane perpendicular to and crossing the first ground facet, and comprising the central axis of the needle tube, constitutes a central plane. In addition, Claim 1 recites that the needle point is not present on the central plane and is the only needle point.

As discussed in the present application, when the injection needle at issue here pierces the skin, the needle initially contacts the skin not by way of point-to-point contact between the skin and the needle point 5, but by way of more linear contact. Thus, when the distal end of the edge surface 3 of the needle contacts the skin and the edge surface is further forced into the skin, forces that are applied from the edge surface to the skin are distributed in a way that reduces puncture pain.

The Official Action sets forth an anticipatory rejection of independent Claim 1 based on the disclosure in U.S. Patent No. 3,448,740 to *Figge*. This document describes a hypodermic needle having a pair of side edges 12, 13 that terminate at a piercing point 14. The side edges 12, 13 define a tongue-like cannula wall segment 10a that includes a tip end portion 10b terminating at the piercing point 14 and a rear portion 10c terminating at a heel 15. The tip end portion 10b of the tongue-like

cannula wall segment is defined by a pair of side edge portions 12', 13' while the rear portion 10c is defined by a pair of side edge portions 12'', 13''.

The Official Action observes that the hypodermic needle disclosed in *Figge* includes a first ground facet defined by element 15, 12'', 13'', and two additional ground facets 12', 13'. However, the heel 15 and side edge portions 12'', 13'' disclosed in *Figge* are not a ground facet and cannot reasonably be interpreted as constituting a ground facet. Indeed, elements 15, 12'', 13'' represent a twisted surface or a curved surface as clearly illustrated in Figs. 1 and 2 of *Figge*. Because elements 15, 12'', 13'' are not a ground facet, *Figge* is further deficient in that there is no plane which crosses the first ground facet perpendicular thereto and comprising a central axis of the disclosed needle. It is thus respectfully submitted that the disclosure in *Figge* cannot anticipate the claimed needle construction recited in independent Claim 1.

In the event the Examiner continues to believe that the disclosure in *Figge* is relevant to Claim 1, the Examiner is kindly asked to explain how the heel 15 and side edge portions 12'', 13'' in *Figge* constitute a ground facet.

Independent Claim 3 defines a different aspect of the injection needle at issue here. As set forth in Claim 3, the injection needle possesses an edge surface comprising three ground facets formed on the distal end of the needle tube to provide a needle point. One of the ground facets which is most remote from the needle point constitutes the first ground facet, while the other ground facets constitute the second ground facet and the third ground facet. Claim 3 also sets forth the relationship of the angle  $\alpha$  between the first ground facet and the central axis of the needle point, the angle  $\Phi$  between the second ground facet and the

central axis of the needle point, and the angle  $\theta$  between the third ground facet and the central axis of the needle point (i.e.,  $\alpha < \Phi$ ,  $\alpha < \theta$ , and  $\Phi \neq \theta$ ).

Addressing Claim 3, the Official Action cites U.S. Patent No. 3,071,135 to *Baldwin et al.* This document describes a hollow needle that includes a beveled front face 12, two beveled side faces 13 that merge into a pointed tip 14, and a heel 15 that is dished to provide an external recess 17. According to the interpretation set forth in the Official Action, It is understood that the external recess 17 is interpreted as corresponding to the claimed first ground facet, the beveled front face 12 is interpreted as corresponding to the claimed second ground facet, and the beveled side face 13 is interpreted as corresponding to the claimed third ground facet.

Taking into account this interpretation, Claim 3 has been amended to better distinguish the configuration of the injection needle at issue here relative to the needle described and shown in *Baldwin et al.* Claim 3 now recites that the first ground facet is of a substantially elliptical shape possessing a major axis, and that the second ground facet and the third ground facet are formed on different sides of the major axis of the first ground facet. Quite clearly, the needle disclosed in *Baldwin et al.* does not include this claimed arrangement, together with the other features recited in independent Claim 3. It is thus respectfully submitted that Claim 3 is patentably distinguishable over the disclosure in *Baldwin et al.*

The dependent claims in this application set forth further distinguishing aspects associated with the claimed needle. However, as these claims are allowable at least by virtue of their dependence from allowable independent claims, such additional distinguishing aspects of the claimed injection needle are not addressed at this time.


Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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Date: July 27, 2006

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